

REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested. Claims 1-4, 6 and 8-16 remain pending. Entry of the amendment to claim 13 is appropriate because it has simply been rewritten to place it in independent form, which does not raise new issues that would require additional consideration or search.

Claims 1-4, 6 and 8-16 have been rejected under 35 U.S.C. 103(a) as unpatentable over U.S. Patent No. 6,159,434 to Gonjo et al. ("Gonjo") in view of German Patent Document No. DE 197 43 673 ("Schuessler") and U.S. Patent No. 5,209,906 to Watkins et al. ("Watkins"). This ground of rejection is respectfully traversed.

The combination of Gonjo, Schuessler and Watkins does not render Applicant's claim 1 unpatentable because the combination does not disclose or suggest all of the elements included therein. Specifically, the combination of Gonjo, Schuessler and Watkins does not disclose or suggest a system for heating or converting at least one medium comprising layers which "are arranged between a lower end plate and an upper end plate, and insulating plates are provided between the end plates and layers which are respectively adjacent to the end plates."

The Office Action acknowledges that Gonjo and Schuessler each do not disclose or suggest the provision of insulation plates between the end plates and layers which are respectively adjacent to the end plates. To remedy this

deficiency, the Office Action relies upon Watkins, stating that insulation plates 74 and 85 illustrated in Figure 5 of Watkins constitute a modular isothermal reactor. However, this figure is described as “an exploded side view of the reaction section of a second embodiment of the modular isothermal reactor.” (Col. 4, lines 37-40) (emphasis added). Watkins discloses that the modular isothermal reactor illustrated in Figure 1 includes a heat exchange section 11 and a reaction section 12. (Col. 4, lines 64-68). Figure 1 of Watkins illustrates that a thermal fluid flow channel 17 is arranged between the reaction section 12 and the end plate 18 of the modular isothermal reactor. Accordingly, the insulation and end plates in Fig. 5 of Watkins are insulation and end plates of only the reaction section, and not of the modular isothermal reactor. Therefore, Watkins does not disclose or suggest providing insulating plates between the end plates of the system and layers which are respectively adjacent to the end plates as recited in Applicant’s claim 1.

It is noted that Figure 15(a) of Gonjo illustrates heat insulators 46 between the liquid feed heating portion 1b and other portions of the fuel reforming apparatus. Because the disclosures of both Gonjo and Watkins of provide insulators around only particular portions of an apparatus, the Applicant respectfully submits that these references would not motivate one skilled in the art to provide layers that “are arranged between a lower end plate and an upper end plate,” or “insulating plates ... between the end plates and layers which are respectively adjacent to the end plates,” as recited in Applicant’s claim 1.

Because the combination of Gonjo, Schuessler and Watkins does not disclose or suggest all of the elements of Applicant's claim 1, the combination cannot render Applicant's claim 1 unpatentable. Claims 2-4, 6, 8-12, and 15 variously depend from Applicant's claim 1, and are, therefore, patentably distinguishable over the combination of Gonjo, Schuessler and Watkins for at least those reasons stated above with regard to Applicant's claim 1.

For at least those reasons stated above, it is respectfully requested that the rejection of Applicant's claim 1-4, 6, 8-12, and 15 be withdrawn.

With regard to claim 13, the Office Action acknowledges that Gonjo and Schussler do not provide insulation laterally surrounding the stack. However, the Office Action relies on housing 88 in Figure 5 of Watkins as disclosing such. Applicant's respectfully submit, however, that there was no motivation at the time of the invention by one of ordinary skill in the art to combine the housing disclosed by Watkins with Gonjo and Schussler.

The housing described by Watkins is required to prevent the contents of the reactor from leaking out. Thus, the Abstract of the Disclosure states that "The cooperating surfaces of the sealing plate, baffle plate, heat transfer surfaces and housing interior define a labyrinthine channel for containing a suitable quantity of solid catalyst and through which feedstock flows." (emphasis added). Gonjo and Schuessler do not require a housing because their reactor sections consist of plates that are stacked tightly together which prevents leakage. The Office Action acknowledges this point, noting that the "layers are inherently

sealed to some degree since a plurality of plates stacked additionally function to seal layer edges." Because the function of housing 88 of Watkins is already provided by the stacked plate structures of Gonjo and Schussler, it is respectfully submitted that one of ordinary skill in the art would not have been motivated to modify the combined disclosures of Gonjo and Schuessler with the housing of Watkins.

In addition, because claim 13 includes all of the elements of claim 1, claim 13 is patentably distinguishable over the combination of Gonjo, Schuessler and Watkins for at least those reasons stated above with regard to claim 1.

Claims 14 and 16 variously depend from Applicant's claim 13, and are, therefore, patentably distinguishable over the combination of Gonjo, Schuessler and Watkins for at least those reasons stated above with regard to Applicant's claim 13. For at least those reasons stated above, it is respectfully requested that the rejection of Applicant's claims 13, 14 and 16 be withdrawn.

All outstanding rejections have been addressed. It is respectfully submitted that the present application is in immediate condition for allowance. Notice to this effect is earnestly solicited. If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

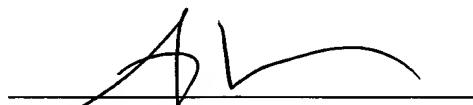
If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and

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please charge any deficiency in fees or credit any overpayments to Deposit
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Respectfully submitted,

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